NOTE XXI.

ON THE SUMATRA PORCUPINE, HYSTRIX MÜLLERI, TEMMINCK MS.

BY

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In his short paper on the fauna of the Malayan Archipelago S. Müller [1]) states, that *Hystrix fasciculata* is found in Sumatra, Java and Borneo. In this he must have been mistaken, and seems to have confounded *H. javanica* with *H. fasciculata.*

H. fasciculata, Shaw [2]) is the *Porc-épic de Malacca*, Buffon. [3]) Wagner [4]) also confounded this species with *H. macroura*, L., which is the *Porcus, aculeatus, sylvestris seu Hystrix orientalis singularis*, Seba. [5]) The *H. macroura* has the tail half the length of the body and head (Seba), *H. fasciculata* one third (Buffon), the *Java Porcupine*, which has a very short tail, only nearly one fifth.

1) Verhandelingen over de Natuurlijke Geschiedenis der Nederlandsche Overzeesche Bezittingen, 1839—44, p. 36.

2) General Zoology, 1801, Vol. II, part. I, p. 11, pl. 124, fig. 2.

3) Supplément, 1799, tome VII, p. 124, pl.

4) Schreber, Säugethiere, Suppl. Band IV, 1844, p. 23.

5) Thesaurus, 1734, t. 1, p. 84, pl. 52 (figura bona).

H. fasciculata according to Buffon is moreover white on the belly.

In the Mémoires du Muséum d'histoire naturelle [1]), Fr. Cuvier states, "le genre *Acanthion* contient: l'acanthion de Java, *Acanthion javanicum*, qui ne nous est connu que par sa tête osseuse, dont nous avons déjà décrit les traits principaux (pl. 1, figs. 3 et 4); l'origine de cette espèce étant bien établie, on pourra aisément suppléer à ce qui nous manque pour le faire connaître complétement." As there are no differences at all between the skulls of the common Javan Porcupine and the figures given by Fr. Cuvier and as there is hitherto found in Java but one single species of Porcupine, Wagner [2]) has made a "double emploi" in giving a new specific name *H. brevispinosa* to the common Javan Porcupine, *H. javanica*, Cuvier.

J. van der Hoeven [3]) gives a list of the Hystrices in the Leyden Museum and among them *H. torquata*, a synonym of *H. javanica*, and *H. caudata*, probably a specimen without tail: the latter however I have not found in our collection.

Marshall [4]) states that there are in the Leyden Museum three stuffed examples of *H. javanica*, two skeletons and three skulls; of *H. longicauda* (under the MS. name *H. Mülleri*, Temminck) one full-grown example from Sumatra, a half grown individual, marked *H. javanica*, without locality and a very young one in its first year from Borneo. I never saw this last specimen in our Museum.

According to Sclater [5]) the *Acanthochoerus Grotei*, described and figured by Gray [6]) is the same as the Por-

1) Tome IX, 1822, p. 431.
2) Schreber, Säugethiere, Suppl. Band IV, 1844, p. 20.
3) Tijdschrift van J. v. d. Hoeven, 1836, t. III, p. 110.
4) P. Z. S. L. 1871, p 235, note.
5) P. Z. S. L. 1871, p. 234.
6) P. Z. S. L. 1866, p. 306, pl. XXI.

cupine figured by Marsden [1]), with the following very brief description "Porcupine (*hystrix longicauda*) landak, and, for distinction, babi landak." In his figure nearly all the quills have two black rings, hitherto never met with in the Porcupines from the Malayan Archipelago. The *Acanthochoerus Grotei* (vide plate and description) is a Porcupine with the tail rather elongated, covered with white spines and having the whiskers black. The Sumatra species of Porcupine in the Leyden Museum is not *H. longicauda*, our Sumatra specimens having the tail as short as the Java species, the spines on the tail being dark ringed and the whiskers being black with very long white tip.

Günther [2]) described specimens and figured skulls of *H. crassispinis* and *Trichys lipura* from Borneo. These species may be distinguished at a glance from the other Porcupines of the Malayan Archipelago, *H. crassispinis* by the extreme thickness of the quills (about twice as thick as an incisor), *Trichys lipura* by having the tail reduced to a scarcely perceptible prominence of the skin. The differences in the skulls are evident when comparing the figures of Cuvier's Javan species and those of Günther's Bornean species with our Sumatran skull.

And so it seems that S. Müller — s. n. *H. fasciculata* has confounded three distinct species; that in Sumatra, Java and Borneo at least four distinct species of Porcupine are found; and finally that the Porcupine collected by S. Müller at Padang (Sumatra) is a yet undescribed species.

Hystrix Mülleri, Temminck MS.

It must be noticed that S. Müller, l. c. observes: "the specimens of Porcupine from Sumatra have a much purer

1) History of Sumatra, 1811, third edition, p. 118, pl. XIII.
2) P. Z. S. L. 1876, p. 736, pl. LXX and LXXI.

colour: in the specimens from Java the chest, belly and limbs are dirty red-brown, in the Sumatra specimens on the other hand dark brownish black. In the latter moreover the collar on the throat is brighter white and therefore more evident."

I add the following characteristics: the head is comparatively very long and narrow; the whiskers are very long — the longest measures 19 c. m. — brownish-black at the base with long white points. A slightly elevated crest arises between the ears along the neck. The spines of the crest are cylindrical, the longest measures 53 m.m., brownish-black, ringed with white towards the tip of the spine. The spines on the back are polygonal and channeled, the longest measures 4 c.m., brownish-black, in youth white at the tip. On the middle of the back the quills are very long, the longest 19 c.m. — in the *H. javanica* 126 m.m. —, the greatest thickness is nearly 6 m.m., brownish-black ringed, white at the base and white towards the point for 95 m.m. Other quills longer but slender, and more rarely projecting beyond the former.

Tail as in the Java species, the spines however have longer white points, and so the backpart of the animal is much whiter than in the Java Porcupine. Marshall in his note (l. c.) says: "in the skeleton and skull I can find no material differences between the two species (sc. *H. javanica* and *H. longicauda* = *Mülleri*)." After a careful examination of two skeletons of *H. javanica* and one of *H. Mülleri*, I agree with Marshall's statement about the skeletons; as I find in both species the same number of vertebrae, viz. 14 costales with 14 costae, 5 lumbares, 4 sacrales and 15 caudales. But there are differences in the skulls. The skull of *H. Mülleri* is longer and narrower, the nasalia are longer, the length of the upper molar series on the other hand is less in *H. Mülleri*. The palatal incision in the latter does not surpass the molar series, while that incision in *H. javanica* advances forwards to the front margin of the hinder molar, as in *H. crassispinis*.

	H. Mülleri. m. m.	H. javanica. m. m.
Length of body from tip of nose to root of tail	618	
Length of tail without terminal quills	115	
Length of one of the largest quills on the back	190	127
Total length of skull	135	118
Length of nasal bone	59	48
Length of upper molar series.	23	26
Distance between incisor and first upper molar.	37	33
Distance between incisor and first lower molar.	23	20

The measurements of the skull were taken from the skeleton of a very old specimen formerly collected at Padangbessie (Sumatra) by our diligent traveller S. Müller.

The other measurements are those of a very old male, having lived $1^1/_2$ year in captivity at Padang at the house of the Chinese Lie Saay, and a year in the Royal Zoological Botanical Gardens at the Hague. We may take this opportunity of expressing our sincere gratitude to that Society and especially to the Director Mr. Maitland, to whom we are indebted for this very fine specimen.

In the Leyden Museum we have of *H. Mülleri* four stuffed specimens and one skeleton, of *H. javanica* four stuffed examples, two skeletons and three skulls.

In the Galleries of the Amsterdam Museum, Natura Artis Magistra, there is also an adult stuffed specimen of the Sumatran Porcupine, which died last year in the Zoological Gardens.